

**Remarks**

Claims 1-4, 6-21, 23-29, and 31-39 are pending in the application. Claims 2, 3, 6-9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 26-28, 31-33, 35, 36, 38 and 39 have been withdrawn from consideration pursuant to a restriction requirement by the Examiner. Claims 5, 22 and 30 have been canceled without prejudice to or disclaimer of the subject matter therein. Claims 1, 4, 10, 13, 16, 19, 25, 29, 34 and 37 stand rejected.

**Claim rejections**

**Section 102**

Claims 1, 4, 10, 25, 29, 34 and 37 were rejected under 35 USC 102(b) as being anticipated by Kato (JP 10261421, US equiv. 6,127,059) (hereafter, "Kato"). The Applicant respectfully traverses.

The Applicant maintains that Kato does not support the asserted rejection of claim 1 for at least the reason that Kato does not disclose a "water-repellent layer with a multi-layer structure including an inner layer and an outer layer different in adhesiveness and strength to each other" as recited in claim 1. Claims 10 and 25 recite similar language.

The water-repellent layer itself of the present invention has a multi-layer structure, while the water-repellent layer of Kato has a single layer structure. Although the Examiner contends in lines 11 and 12 of the final Office Action that the water-repellent layer of Kato is multi-layered (citing col. 1, lines 15 et seq.), there is no description in Kato to suggest that the water-repellent layer is multi-layered.

Note is taken of the Examiner's remarks in the Advisory Action mailed September 29, 2005 ("Advisory Action"). Specifically, the Examiner contends that by use of the term "multi-layer," the Applicant is "asking the examiner to read limitations into the claims that are not there." However, the claims do not recite simply a multi-layer water-repellent layer, but further affirmatively call out structural elements of the water-repellent layer. In claims 1, 10 and 25, for example, two layers are explicitly recited – an inner layer and an outer layer different in adhesiveness and strength to each other. Claim 25 limits the inner and outer layers even further, reciting that the

inner layer has a strength greater than a strength of the outer layer, and that the outer layer has an adhesiveness stronger than an adhesiveness of said inner layer. There is nothing "vague" or "indefinite" about these recitations, contrary to what the Examiner further argues in the Advisory Action. Moreover, Kato discloses none of the claimed structure. As it is the Examiner's position that Kato does disclose these features, the Examiner is again respectfully requested to identify the alleged multiple layers of Kato's water-repellent layer. The Applicant maintains the position that this feature is absent from Kato and that therefore claims 1, 10 and 25 are allowable over Kato for at least that reason.

Claim 29 is similarly allowable over Kato, for at least the reason that claim 29 recites a water-repellent layer including two kinds of binders, "wherein said two kinds of binders include a first binder made from a synthetic resin having an adhesiveness and a second binder made from material having a higher rigidity than said synthetic resin of said first binder." This feature is absent from Kato.

The Examiner asserts that "of the materials disclosed by Kato, the order of use determines which material will have a higher rigidity" (Office Action, page 4, lines 16-17). The Applicant requests clarification. Kato neither mentions an order of use nor a difference in rigidity.

The Examiner further notes that "'higher rigidity' relates to the materials at hand and can change with any reference." It is true that the recited higher rigidity relates to the materials at hand, but this in no way militates against patentability. While it is not entirely understood what is meant by "can change with any reference," it is noted that claim 29 recites a difference in rigidity between two materials, not a *degree* of difference.

Concerning claim 29, the Examiner further states in paragraph 4 of the Office Action that "if the order of use is invariant then that would be a statement of intended use, which is given little to no patentable weight." Clarification is respectfully requested. As noted above, Kato does not mention an order of use. Claim 29 does not claim an order of use, or recite any statement of intent.

The Applicant maintains the position that claim 29 is allowable over Kato for at least the reasons discussed above.

Claims 4, 34 and 37 are likewise allowable over Kato, for at least the reason that claim 4 recites "a water-repellent layer coated on said base layer, said water-repellent layer including a synthetic resin filament as a structural reinforcement element." The claimed filament increases the strength of the water-repellent layer.

Kato does not disclose a synthetic resin filament. In Kato, because the treatment of the water-repellent layer is conducted at a temperature higher than a melting point of synthetic resin, the synthetic resin cannot be deformed into a filament. (In order to deform synthetic resin into a filament, the heat-treatment must be conducted at a temperature lower than the melting point of the synthetic resin.) Therefore, a synthetic resin filament does not exist in the water-repellent layer. Accordingly, claim 4 is allowable over Kato. Claims 34 and 37 are likewise allowable over Kato for at least the reason that they depend on allowable claim 4.

In view of the above discussion, withdrawal of the rejection of claims 1, 4, 10, 25, 29, 34 and 37 as being anticipated by Kato is respectfully requested.

Claims 13 and 16 were rejected under 35 USC 102(e) as being anticipated by Campbell et al. (US 5,863,673) ("Campbell"). The Applicant respectfully traverses. Campbell does not support the asserted rejection for at least the reason that Campbell does not disclose yarn constructed of a woven fabric, as recited in claims 13 and 16. Instead, Campbell only relates to a diffusion layer constructed of woven or non-woven fabric. One advantage of yarn constructed of a woven fabric as recited in present claims 13 and 16 is that it has greater deformability than the fabric disclosed in Campbell. The deformability of the woven fabric of Campbell becomes small when impregnating the binder. On the other hand, since the yarn of a woven fabric as recited in claims 13 and 16 originally has a greater deformability, a handling feasibility is maintained even when the binder is added.

The Examiner's remarks concerning yarn in the Advisory Action are noted. Specifically, the Examiner states that "[t]he term yarn can read on any fiber, string or other similar piece that would be woven into a fabric." The Applicant respectfully disagrees. One definition of "yarn" (from the web site [www.dictionary.com](http://www.dictionary.com)) is "A continuous strand of twisted threads of natural or synthetic material, such as wool or

nylon, used in weaving or knitting.” Thus, yarn has structure distinct from mere fiber or string.

In view of the above, claims 13 and 16 are allowable over Campbell. Withdrawal of the rejection of claims 13 and 16 as anticipated by Campbell is therefore respectfully requested.

Claim 19 was rejected under 35 USC 102(e) as being anticipated by Beattie et al. (US 6,667,127) (“Beattie”). The Applicant respectfully traverses. Beattie does not support the asserted rejection for at least the reason that Beattie does not disclose a “synthetic resin binder impregnated into the carbon paper with a nonuniform distribution in an impregnation amount in an in-plane direction of the carbon paper and carbonized.” Instead, in Beattie, an impregnation amount of a binder is made nonuniform in a thickness direction of the base layer of the diffusion layer.

An advantage of affording a nonuniform distribution of an impregnation amount of the binder in the in-plane direction of the carbon paper is that both a creep-resistance (a portion where much binder is impregnated has a large creep-resistance) and a good productivity (the base layer can be easily wound around a roller so that a continuous production is possible) can be achieved as described in paragraph [92] of the present specification.

In view of the foregoing, claim 19 is allowable over Beattie. Withdrawal of the rejection of claim 19 as being anticipated by Beattie is therefore respectfully requested.

Conclusion

In light of the above discussion, Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4323 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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